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Business Models for Video Game Startups

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Video games have emerged from a niche market for geeks into a booming industry worth billions of dollars annually catering to hundreds of million people spending billions of hours weekly with their favorite games. The industry has been dominated by several large publishers after years of consolidation, but with the continually lowering barriers to entry and increasing interest and *laissez-faire* in the field, new players have begun emerging in the form of startups. Though many fail without ever even breaking the news barrier, many others have become household names, such as Rovio, Supercell, Housemarque and Mojang. These new success stories make use of various business models, though trends have begun to emerge, such as the move towards a fully-digital distribution model and the solidified mechanic of in-game transactions. Though the platforms may be different, many of the same rules of business apply for the mobile devices, computers and home consoles alike.

By studying these business models, their inherent strengths and weaknesses as well the opportunities available to them and threats facing them we can provide a better understanding off the industry and a more stable future for what is increasingly becoming the world's favourite pastime.

Keywords	Video games, business models, e-business, startups

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Research Topic: Business models for Video Game Startups

Problem Area: The online marketplace allows video game startups to experiment with and utilize various business models, some traditional and others innovative. In this extremely competitive environment however, for every Supercell and Frozenbyte there are countless that fail to gain traction.

This thesis will look at the various business models from the perspective of video game startups and focus on why they would be attractive to the startups and their customers.

Research Question: What business models are available to a video game startup and how likely are they to succeed?

Purpose: Identify and discuss the most successful trends in video game startups based on historical data and relevant literature on business models and the video game industry.

Research methods: As uch as possible, literary sources with a focus on research reports and industry studies will be used. A likely highly important secondary source will be industry journals and published interviews with industry professionals.

Limitations: The study will concentrate on the startup aspect of the video game industry, with a likely focus on mobile gaming due to the large number of companies operating in this area. Piracy, though a valid and important subject in the field of video game business models will not be looked at in-depth in this study, due to its effects being more often felt on the big established publisher side as well as time and scope constraints. A variety of sources will be used, such as journals, studies and reports, but dedicated scholarly literature may be hard to come by, requiring appropriation from related fields. Finally, the study will be limited to the study of the business models of video game startups rather than the products themselves and why they would be successful or relevant to video game startups.

Preliminary conclusion: Based on media presence, studies and empirical evidence, it seems that for mobile games the freemium model is likely to prove the most promising, while the digital distribution model may prove more successful for PC and console games. This may also draw from the differences in how people view these two significantly different ”tiers” of gaming (namely casual vs. hardcore).

1 Introduction

Video games have become a part of mainstream entertainment, covering more demographics than ever before. Over the last 25 years it has been subject to various changes in technology and business approaches, which have led to a highly dynamic industry. With increasing revenues and sales this area of business is increasingly interesting to investors and entrepreneurs alike.

The current generation of young business professionals is the first ever to truly have lived the video game phenomenon and feel that it is their own. This, combined with the increased opportunities and decreased barriers to entry have led to a phenomenon of video game startups rising and falling very rapidly as entrepreneurs want to do what they enjoyed as children. But why do so many fail, and what is the key to the success of those that don't? With the online gaming community having surpassed 217 million people in 2007 (comScore 2007) and as a planet spending more than 3 billion hours a week playing video games (McGonigal 2011) video game companies, and startups in particular, willing to utilize this growing market need to know exactly what to do to be successful.

There are a variety of ways for companies in the gaming industry be profitable and successful, some well-grounded as industry practices, others only a few years old and brought out through technological innovation. The rise of the e-business in the 1990's provided a brand new platform for companies to reach their customers, and the technologically oriented gaming community was one of those who eagerly embraced it. In 2012, Stardock conducted a study showing that 82% of their customers purchased their games digitally (Wardell 2013). This seems in line with other findings (The Entertainment Software Association 2013, and Michaud 2010), providing new and exciting opportunities and challenges for entrepreneurial gaming professionals.

By studying these phenomena, emerging trends and past events, a new startup in the digital age can provide itself with the necessary tools to build and achieve success.

2 Literature Review

2.1 Startups

The term ”startup company” is a contentious one. For a long time startup companies were viewed as simply smaller companies (Blank 2012), as exhibited by the current Merriam-Webster definition of ”a fledgling business enterprise”, but this view has shifted and startups have received a new definition. According to Blank, a startup is "*an organization formed to search for a repeatable and scalable business model" (Blank 2010)*. This definition provides a much clearer image of a startup and provides us with a look into their goals and motivations, but is not the only one used. Neil Blumenthal of Warby Parker defines a startup as ”a company working to solve a problem where the solution is not obvious and success is not guaranteed” (Robehmed 2013). Yet others, like Adora Cheung of Homejoy, call it a ”state of mind” (Robehmed 2013). For this work we shall be using Blank's definition, as it provides the most credible and precise definition of those offered.

With the launch and spread of the internet since 1996, startups have had an unparalleled opportunity to prosper (The Economist 2014). The barriers to trade and distribution have been reduced and people and companies have the opportunity to engage in business on an international scale without necessarily having anything more than a virtual presence. There are several factors (Awad 2006, pg.10-12) that in particular drive this new movement:

1. Digital convergence. More and more devices are able to communicate with each other, including mobile phones, computers and servers.
2. Availability to anyone, anywhere, anytime. The internet allows uninterrupted connectivity between parties.
3. Changes in organizations. Empowerment and communication are improved throughout organizations, allowing smaller companies to operate much more effectively.
4. Increasing pressure on operating costs and profit margins. The internet has allowed creators and distributors of in particular immaterial goods and services

to cut their costs and increase profits as well as increase their potential markets far beyond what their local environment could provide.

5. Demand for customized products and services. With increasingly demanding customers, customized payment options and delivery methods for goods and services are easier to organize over a digital platform.

These factors have given rise to the industry sector of e-business. Since its early conception in 1995, e-commerce has grown into a multi-trillion dollar industry (Laudon et al. 2011, pg. 4), so it is small wonder that new companies want to be a part of this.

2.2 E-Business

The term e-business refers to the utilization of information and communication technologies (ICT) to support all the activities of business. Beynon-Davies (Beynon-Davies 2004, pg. 4, 27) considers this a superset of e-commerce, which constitutes the trade of goods and services using ICT and to enable the external activities and relationships of the business with outside parties, such as consumers and other businesses. These are the definitions used in this work.

According to Laudon et al (Laudon et al. 2011, pg. 42-43).the online consumer sales grew 12.7% in 2010 compared to retail growth of 2.5%. Online delivered content is a major characteristic of the Internet Economy, and the one most relevant to the gaming industry due to the intangibility of its product (Barnes 2007, pg. 24-40). With industry leaders such as EA's Executive Vice President Frank Gibeau (Brightman 2012) increasingly calling for purely digital distribution and marked increase in digital game sales (Peterson 2013) it is safe to say that the video games industry will be predominantly an e-business in the foreseeable future.

Traditionally the stages of a commerce transaction (Beynon-Davies 2004, pg. 289-291, 306) are:

- *Pre-sale*: Involving the activities occurring before a sale.
- *Sale execution*: Comprising the activities of the actual sale.
- *Sale settlement*: Involving the activities completing the sale.

- *After-sale*: Involving the activities that take place after the buyer has received the product or service.

An e-commerce transaction is remarkably similar, but extends the simpler model with relevant advances and takes into consideration the added complexities of the internet infrastructure (Beynon-Davies 2004, pg. 307-317):

- *Information-seeking and communication*: Using the internet to look for information, for example by search engines, provided by the seller or other parties.
- *Marketing presence*: For any company it is vital to provide a desirable image on the internet with a clear customer focus, for example by producing an official website.
- *Online catalogue*: This stage is about providing the customer with the selection of products or services the company has to offer. It can either be a static website or a more sophisticated dynamic platform allowing for updates from an external database.
- *Online ordering*: This stage is to allow the customers to effortlessly place an order for the products or services they wish to purchase and is a key transition point for most businesses as it involves the integration of the website with the back-end information systems. This allows the delivery of goods and services as well as the all-important payment.
- *Online payment*: At this point the customer both orders and pays for the order using the website. Here is one of the main differences between a traditional cash transaction and e-commerce, as the front- and back-end information systems must integrate flawlessly to reduce the challenges e-commerce faces, such as trust and computer-related errors (Beynon-Davies 2004).
- *Online delivery*: For intangible goods, such as games, it is possible to deliver the order online. Some sellers make use of a ready platform, such as Steam or Google Play. For physical distribution, this stage usually means that the physical product is sent from a warehouse via an agreed-upon delivery method, for example post or courier.
- *Customer profiling and referencing / Customer relationship management*: Gaining new customers and retaining existing ones is a major part of business, especially in an area with very low thresholds for customers to switch to

competition. If a customer feels that he or she is properly attended to however, for example by receiving individualized offers based on their profile, they are more likely to both take the offers and remain a customer in the future.

Table1.Stages of B2C e-commerce system

Pre-sale	Sale execution	Sale settlement	After-sale
Information seeking and communication	Online ordering	Online payment	Customer profiling and preferencing
Marketing presence		Online delivery	
Online catalogue			

In some ways, e-commerce is not significantly different from traditional retail. The same effort going into the *pre-sale* process, such as advertising and other marketing processes, takes place in both cases, but with different approaches and mediums. In purchasing a game, the *pre-sale* phase includes the marketing of the game and increasing its presence on social media, bringing it to the public awareness. When a customer has heard of the game, he or she buys it which is a clear case of *sale execution*. At this point, money exchanges hands, be it by credit card or by other means such as PayPal, and the *sale is settled* and the *online delivery* by agreed-upon mean can take place. *After-sale* services may include patching in the future or technical support as well as the *customer profiling and referencing* for future offers and other after sales marketing, such as downloadable content for the game.

But although in theory e-commerce essentially follows the same steps as traditional commerce, there are challenges that it brings, which have made people hesitant to embrace it (Beynon-Davies 2004, pg. 296-297):

- *Trust*: Many people are reluctant to purchase high-value goods or services over the internet, with privacy and the perceived difficulty of securing electronic transactions cited as the most common reasons.
- *Reintermediation*: It is sometimes difficult to identify the exact supplier of goods and services online.
- *Information rich and poor*: Though the internet is rapidly growing and spreading, there are clear differences in accessibility based on one's economic situation in society

- *Technological standards*: With multiple hardware and software manufacturers and rapidly developing technologies, industry standards have a tendency of changing and may have trouble integrating with different generations.
- *Cost of computer-related mistakes and errors*: Visibility of errors in the internet era is much higher than before.

Despite these hurdles, the demographic profile of online shoppers continued to broaden in 2010, although generational differences in purchasing patterns have emerged (Laudon et al. 2011). This could be indicative of increased trust in e-commerce as a viable alternative to traditional retail, a key challenge that e-commerce has wrestled with, or the improved accessibility to the internet across demographics.

2.3 Video Games

The definition of a video game has changed over time as the industry has grown and evolved and nowadays encompasses a vast variety of digital entertainment from first person shooters set in space (such as Microsoft's Halo-series) to birds trying to avoid pipes as they make their way ever forward (Flappy Bird).

But to understand how the various business models work for video games, one must understand video games and the needs and wants they fulfill. Robin Hunicke, Marc LeBlanc and Robert Zubeck in their paper ”MDA: A Formal Approach to Game Design and Game Research” (Hunicke et al. 2004) define video games as a combination of three factors:

1. *Mechanics:* The rules of the game. This is all the background information that constitutes the game, such as the code and script.
2. *Dynamics:* Meaning how the rules work in practice, what responses the player's actions cause and how they interact with other rules set in the game's code.
3. *Aesthetics:*The ”human element” of the game or how the player experiences the game. As the player interacts with the game, this describes the desirable emotional responses (i.e. what makes the game ”fun”).

Although for building the monetization methods into the game the first two are highly important, the one that most game designers and producers should be most interested

in is the third one, essentially ”What attracts us to video games?”. The easy answer would be ”fun”, but what is fun is highly subjective. Hunicke et al. argue that the ”Aesthetic” part of games flow from various concepts, of which they mention 8:

1. Sensation or ”Game as sense-pleasure”
2. Fantasy or ”Game as make-believe”
3. Narrative or ”Game as drama”
4. Challenge or ”Game as obstacle course”
5. Fellowship or ”Game as social framework”
6. Discovery or ”Game as uncharted territory”
7. Expression or ”Game as self-discovery””
8. Submission or ””Game as pastime”

Games will often provide one or more of these to cater to different target groups, but very few provide all these pleasures at once.

Despite a global recession, the video games industry has shown massive growth (Snyder Bulik 2008). The current explosive growth in video game publishing, in particular on mobile devices, is likely to push the industry's revenue over $100b by 2017 (Takahashi 2014). Those numbers would dwarf the combined music and film industries that only bring in $16,6b and $34,7b respectively (Richard Smirke 2012, MPAA 2013), so it is understandable why so many developers want to be a part of this business.

The gaming industry has traditionally been dominated by major publishers and been constrained by distribution and retail channels that may take up to 40% of a game's sales price (Nichols 2006, pg. 87). The dawn of the internet and the shift to a digital distribution model has allowed new players on the market to break away and launch games on platforms such as Steam (The Inquirer 2014).

Video gaming may be traditionally viewed as blockbuster games on the PC or a home console, such as the PlayStation 4, with travel gaming needs met by handheld game consoles, such as the electronic backlit LCD games of the 1970s and 1980s or the various generations of Nintendo's Game Boy from 1989 onward. However, since arguably 1990 there's been a phenomenon known as mobile gaming (The Entertainment Soft-

ware Association 2014) where devices meant for primarily other uses have a gaming application to them. Though initially simple and unsophisticated, nowadays the mobile gaming market is an extremely rapidly growing area of business (Takahashi 2014) with increasingly more powerful machines and more complex and impressive applications (Chester 2013).

This shift in technology has led to a new situation for developers and publishers. According to Kimberly Chulis, the monetization of video games is undergoing a revolution, which leads to new and untraditional business models (Chulis 2012). For startups this means that there are increasing opportunities to find the right model and funding to realize their vision, but also that there is likely to be increased competition as other developers scramble to be a part of this new wave. This is supported by industry leaders such as Atari's Nolan Bushnell (Johnson 2013, McGlade 2012) bringing up the point that it is increasingly difficult to be noticed in a sea of hundreds of thousands of games on the existing devices.

According to Perry (Perry 2009, pg. 43-56) there are 39 distinct business models for video games, all of which could be considered valid by a startup depending on the type of game they are developing and the platform it is launched on. Out of these this study will be looking at the six considered most relevant for a startup company, due to the perceived ease of application, perceived market acceptability and perceived low costs, as well as a combination of other factors:

1. Digital Distribution, such as Valve's Steam or Sony's PlayStation Network
2. In-Game Advertising, banner ads and product placement
3. "Try Before you Buy" / Trialware / Shareware / Demoware / Timedware, such as timed demos
4. Episodic Entertainment, such as Telltale Games' The Walking Dead-series
5. Pre-Sell a Game to Its Players, for example through pre-order bonuses and Kickstarter
6. In-Game Stores and Micro-Transactions, such as freemium games and in-game purchases

The remaining 33 business models, such as advert-games, Buy the Win and Skill-based progressive jackpot models, will not be covered in this work due to time and scope constraints, but will hopefully be expanded upon in a future study.

Finally, new financing methods such as Kickstarter and Valve's Steam Greenlight will be looked at from the point of view of how they could affect video game startups regarding their business models.

2.4 Business Models

For a successful company, a well-planned business model is a valuable tool. In order to form one however, one should have a clear description and definition of what comprises a business model. According to Osterwalder et al. (Osterwalder et al. 2010, pg. 14-17), a business model describes the rationale of how an organization creates, delivers and captures value. This is expanded in further detail in other works, such as Gorschels (Gorschels 2012, pg. 12-15, 151-164) as times and the business environment change.

Osterwalder et al. define a business model as having been made from 9 ”building blocks”:

1. Customer segments: An organization serves one or several *customer segments*. These approaches can be directed either toward the mass market, niche market, segmented approach or others.
2. Value propositions: It seeks to solve customer problems and satisfy customer needs with *value propositions*. Common values that a company seeks to deliver are newness, performance, price, risk reduction, accessibility, brand or status, or customization.
3. Channels: Value propositions are delivered to customers through communication, distribution, and sales c*hannels*. Channels can be either direct, for example through a developer's/publisher's own website, or indirect through retailers such as GameStop. This is the part where Beynon-Davies' (Beynon-Davies 2004) stages of commercial transaction come to play, as the customer moves from awareness to after sales.
4. Customer relationships: *Customer relationships* are established and maintained with each c*ustomer segment.* It is important for a company to distinguish its

customer relationship approach to maintain a steady image. Depending on what kinds of relationships the company is looking to achieve, they can go for personal assistance, self-service, automated service or even co-creation.

5. Revenue streams: *Revenue streams* result from v*alue propositions* successfully offered to customers. Whether it is by asset sale (or digital sale), subscription fee, advertising or licensing, a for-profit company's main goal is to generate income in the most efficient manner.
6. Key resources: *Key resources* are the assets required to offer and deliver the previously described elements. A company's human resources, intellectual properties and physical assets can all be key resources
7. Key activities: *Key resources* are utilized by performing a number of *key activities*, such as production, platforms and problem solving activities.
8. Key partnerships: Some activities are outsourced and some resources are acquired outside the enterprise. These aim to lead to the reduction of risk, optimization of operations and economies of scale and the acquisition of particular resources and activities, which would not be worth producing in-house.
9. Cost structure: The business model elements result in the cost structure. It is a law of business that costs need to be maintained as low as reasonably possible, and this should be taken into consideration in the business model. Some business models allow for higher costs in order to deliver higher value, but all cost structures are formed from the same essential components: fixed costs, variable costs, economies of scale and economies of scope.

In the past, most industries were dominated by one business model (Osterwalder 2010, pg. 136). As the business environment, and particularly e-business, has changed in the past 20 years, this has changed radically. Changes such as Sony discontinuing its signature Walkman player and Wal-Mart ending its strategy of using DVDs as traffic drivers are but two examples of how tried and true business models are making way for a new generation (Gorschels 2012, pg. xi). New models, such as the ones listed by Perry, require a significant creative input for devising a pool of models and analytical insight to identify the best ones. Osterwalder calls this process ”ideation” (Osterwalder 2010, pg. 136, 142) and it is crucial for viable new business models to emerge, as necessary to new business sectors such as video games. For startups, which are often

flexible and dynamic by nature, this can provide a valuable competitive advantage (Osterwalder 2010, pg. 136).

3 Method

For the method of this study the activities of video game startups as well as the opinions of industry journalists and professionals were chosen as the primary sources of information. Given the focus on the startup aspect of the video game industry, this was believed to be a better approach than other alternatives, such as consumer surveys or interviews.

The goal was to find out which business models are likely to serve video game startups well as well as which ones are likely to survive into the future or possibly even become industry standard. To do this in such a way that is scientifically accurate in a business area that is a rather new as well as particularly dynamic and prone to disruptions, industry journals as well as less traditional sources, such as respected industry websites, would likely be most relevant sources to the subject of the study.

3.1 Procedure

At the beginning of the thesis writing process, initial searches for relevant literature with the search terms ”video game startups”, ”digital entertainment business models” and ”video game business models” proved challenging. Published books with these search terms were insufficient in number to base a substantive thesis on, so the parameters were expanded to include related fields, such as e-business. Though this search provided more sources, not all of the material was applicable or suitable for appropriation given the scope of the thesis. Finally, any gaps in literature were covered with relevant and high quality online publications, such as VentureBeat and GamesIndustry International, journals, such as The Economist and The Inquirer, and research papers.

3.2 Analysis of Data

Once the data was collected from these sources, it was important to look for trends in empirical as well as theoretical findings. Given how the goal of the thesis was to understand the feasibility of business models for video game startups, a look at the particular strengths, weaknesses, opportunities and threats of each with the SWOT method, originated by Albert Humphrey (University of Washington 2011) provided a solid theoretical basis for analysis.

The SWOT analysis was chosen because it provides an easily readable and user-friendly deliverable for the reader. It allowed for analysis of internal and external factors relating to each model. It is equally viable for any kind of business and for a startup company it provides concrete examples about the viability of each business model before committing to one. This makes further strategic planning easier and more based on facts and evidenced trends.

This tool allowed the study to concentrate on the key factors that affect the viability of business models for video game startups. It also made it possible to view how different game genres fit each model, a significant aspect to consider for a startup, given the typical limited scope in their initial operations.

One issue in the research was some of the limitations inherent in this method (Koch 2000). As this researcher does not possess an engineering background, any technical suggestions made were born from the material available rather than self-born understanding of the subject.

3.3 Presentation of Data

The findings of the SWOT analysis' were presented in simple 4-field tables with the primary points in each field and then further elaborated on and justified in text with examples and diagrams. This allowed for a rapid and accurate grasp of the main benefits and drawbacks of each business model, making it easy to compare the various business models, and allowing for more expansive study of more interesting business models.

4 Empirical Findings

4.1 Video Game Startups by the Numbers

According to AngelList, an online platform for startup companies, there are currently 616 active startup companies in the video game business (AngelList 2014). Though the list is not entirely comprehensive, for example it is missing Finnish developers Next Games and Tribe Studios, it provides a good list of active video game startups dating back to 2009 with A Bit Lucky. This combined with the study ”Video Games in the 21st Century: The 2010 Report” (Siwek 2010), released by the ESA showing a significantly larger growth in the entertainment software industry than the U.S. economic growth between 2005 and 2009 would indicate a significant likelihood of video game startups with a successful business model and marketable product becoming financially successful. However, it has to be noted that the total unit sale since 2009 has drastically fallen from 290.1 million to 188 million in 2012, coinciding with the global recession (The Entertainment Software Association 2013).

4.2 Industry Trends

An undeniable trend in the video game market is the shift towards digital distribution (The Entertainment Software Association 2013, Wardell 2013, and Michaud 2010). This likely comes from the factors generally driving a more digital integration (Awad 2006, pg. 10-12), and as gamers are typically more technology oriented and thus more likely to embrace new technologies, many of the negatives weighing against e-commerce are less serious for the target market. In fact, it is argued that the only significant barrier to a fully-digital gaming ecosystem is the cost of storage, which needs to come down significantly to allow for the same cost-benefit ratios as the cheap storage space on physical discs (Gaudiosi 2014).

Another ongoing argument in the gaming industry is whether or not mobile gaming will eclipse and eventually be the end of traditional AAA games (Polygon 2012 and GamesTM 2014). While the mobile gaming market has grown and will continue to grow at a remarkable rate compared to other areas of the gaming industry (Takahashi 2013), this doesn't significantly eat away from the other areas of the industry, but rather

drives the entire industry upwards, with PCs, Macs and dedicated gaming handheld's being the biggest losers of this transition.

Though startup companies are not likely to produce true AAA titles at launch due to their massive costs (Polygon 2012), this move towards mobile gaming from the traditional domain of games is something that video game startups need to bear in mind as they develop their strategies and business models.

An unfortunate and alarming trend is that the development side of the game industry has become much more polarized, where developers need to be either small indie companies or large corporations (Tipps 2013). This limits the growth options of startups, as the scaling from a small indie team of 2-5 to a team large enough to operate in the heavyweight class of game development does not have any steps in between, requiring big risks and uncertainty from the side of the developer.

An interesting industry trend is that prices of video games have actually not significantly gone up. On the contrary, the prices of video games have come down noticeably over the past 25 years, if adjusted for inflation (Orland and Gitlin 2013, Moriarty 2013). Part of this has to do with the shift to disc-based storage instead of the far more expensive silicon cartridges used on earlier generations of consoles, but even in the time of CDs, DVDs and Blu-Rays the prices have continued to come down. Comparing this to the movie industry for example where the inflation adjusted prices have almost doubled in the same time span (Box Office Mojo 2014) and considering the cost of developing games (Polygon 2012, Crossley 2009), it seems that there is a trend against the traditional model of price development.

5 Discussion

In this section the particular strengths and weaknesses of the six business models of the study will be analyzed and discussed, and the situations and games they would likely serve best argued. The opportunities that each model provides and the threats they must face and deal with in order to increase their likelihood of success will also be consider. Though there is overlap between the models and some of the models and some models can be combined (for example a digitally distributed game can have in-game transactions), these six models have sufficiently distinct characteristics to be considered separate models.

Each of the models will also be described in their own chapters with the help of Perry (Perry 2009, pg. 43-56). Due to each of them operating in the e-business environment, the classification of each according to Beynon-Davies (Beynon-Davies 2004, pg. 292-295, pg. 307-317) in the electronic commerce environment will also be provided, whether they are Business to Consumer (B2C) or Business to Business (B2B) as well as the requirements for each to operate in this environment.

5.1 Digital Distribution

Steam, Origin, PlayStation Network, Xbox Live Arcade

5.1.1 Classification

Digital distribution means the distribution of the video game to the consumer via the internet (Perry 2008, pg 54-55). This works through a direct online store, such as Steam or the PlayStation Store which provides the desired and purchased content digitally directly to the consumer. As the purchaser of the game is in this case primarily a consumer rather than another business, the digital distribution model mainly works as a B2C approach (Beynon-Davies 2004pg. 292-295) and due to the distribution method being completely replaced by a digital system, any company wishing to utilize it requires an information system capable of at least online delivery (Beynon-Davies 2004, pg. 307-317).

5.1.2 SWOT analysis

Table 2.Digital distribution SWOT analysis

Strengths	**Weaknesses**
◦ Lower costs ◦ Convenience ◦ Environmental impact ◦ Ease of distribution	◦ Need for hard drive capacity ◦ Visibility ◦ Costs of new infrastructure
Opportunities	**Threats**
◦ Wider markets ◦ Elimination of the second-hand market ◦ No shelf-space restrictions ◦ Cloud systems	◦ E-commerce challenges (Beynon-Davies 2004) ◦ Distribution service folds

Strengths

Digital distribution has been hailed as the future of the gaming industry and even the largest developers such as Electronic Arts are looking towards this outcome (Brightman 2012). The possibilities this move brings with it are undeniable, especially to smaller startups without the capital to engage in large-scale production and distribution of physical media. As a traditional retail game costs around $60 (LA Times 2010), the threshold for consumers to purchase an unknown game by an unproven studio at that cost is significantly higher than from an established developer. The ability to cut out the retailer margin, return costs and potentially platform royalty completely and minimize the distribution costs allows for a game to be sold for significantly cheaper, more likely to lead to a purchase decision. It is also increasingly convenient (Awad 2006, pg 10-12) for both companies and consumers to engage in digital commerce as the infrastructure and digital convergence are reaching a wider audience than ever before. Gamers have access to the entire collection for their platform of choice 24/7, regardless of time or location. For companies this translates to even older titles having a distribution platform, something that traditional retail stores cannot offer due to storage constraints.

Digital distribution also cuts down on the distribution chain (PR Ninja 2014) allowing for a much higher profit margin and lower environmental impact than traditional physical copies. Digital distribution currently also removes the ability to resell used games, an issue viewed by many in the industry as problematic (Yin-Poole 2011), increasing the number of products sold should a game become popular.

Digital distribution has already proven its success in mobile markets (App Annie 2014). Both Google Play and Apple's AppStore have shown significant growth, which has been fueled by the low cost apps and easy distribution platforms for the majority of the world's mobile devices (App Annie 2014).

Opportunities

These benefits allow the industry to reach global markets (Beynon-Davies 2004, pg. 295), thus increasing the sales even further. They will also constitute to the elimination of shelf-space concerns in stores, as discs and cartridges will no longer be required.

Weaknesses

Digital distribution has not become the industry standard yet however. One major reason is the need for hard drive capacity, meaning the hard drive sizes required to store the game files. Although the technology has increased rapidly and hard drive prices continue to decrease (McCallum 2013), the sizes of games have increased as well (Usher 2013). This challenge however is being increasingly met by the emerging ”cloud technology”, meaning that the files running the game are stored off-site (Arthur 2011). This would mitigate the need for local hard drive capacity and allow consumers to purchase more games, both small and large, without worrying about their technical requirements or storage needs.

Another challenge in digital distribution is the difficulty of achieving visibility in an environment which is increasingly saturated (Sinclair 2013). If a game is provided as digital only, it will forfeit the in-store visibility and marketing and will need to gain traction by other means.

Digital distribution also brings with it all the inherent weaknesses of e-commerce (Beynon-Davies 2004, pg 296). The back-end systems need to be built and integrated to ensure secure transactions and privacy, which carries with it costs for the company (Beynon-Davies 2004). A startup may not have the resources and infrastructure in place from previous projects, so this construction may be slow and expensive. Also, due to the recent scandals with online privacy (e.g. Sherman 2013), and instances where personal details have been leaked online (e.g. Arthur & Stuart 2011), trust is at a low-point in the gaming community. This makes the customer-base more likely to be wary of online distribution channels and less likely to make digital purchases.

Threats

A startup choosing to embrace the digital distribution method has to contend with outside threats not in their power as well, the most obvious of which is ”what happens if the distribution service folds?” Without a retail presence a developer is purely dependent on their digital distribution platform. Should this service cease to exist, the developer would be left without a distribution network and thus cut off from revenue. Even if the developer were able to find another distribution service, the move would need to be extremely smooth and effortless to the existing customers to avoid severe community backlash.

5.2 In-Game Advertising

Flappy Bird, Plague Inc., Wrestling Revolution, President Obama's 2008 election campaign, Alan Wake Verizon and Energizer campaigns.

5.2.1 Classification

In-game advertising refers to a model where the game is completely or partly financed through advertisement seen in the game. There are essentially two ways to do this: banner ads unrelated to the gaming experience, and product placement (Perry 2009, pg. 44). Banner ads are traditionally found in free-to-play games where the players are aware that the developer needs to generate revenue (Perry 2009, pg. 44). Product placement on the other hand is more subtle. It has its roots in television and movies, where every time a branded product is mentioned or shown, the producers are getting a little extra income. As this is a very low-cost method of generating additional revenue, it was only a matter of time before this model found its way into video games. This method reached mainstream visibility with President Barack Obama's 2008 early voting campaign (Barrett 2008). In-game advertisement combines the B2C and B2B approaches, as it must balance between being satisfactory to the advertising company and the end-user. The company has to be at least at the information-seeking and communication stage of e-commerce (Beynon-Davies 2004, pg. 308), as otherwise any type of online advertising is impossible.

5.2.2 SWOT Analysis

Table 3.In-game advertising SWOT analysis

Strengths	**Weaknesses**
◦ Easy to implement ◦ Ongoing and additional revenue ◦ Possibility to advance revenue ◦ Can increase the realism of a game, hence likely to improve effectiveness of advertising	◦ Measuring results ◦ Long development cycles increase risk
Opportunities	**Threats**
◦ Leverage ad revenue for larger and more impressive games ◦ Ability to utilize the brand recognition of the advertiser	◦ Community backlash ◦ Advertiser abandon the game ◦ Legal issues

Strengths

In-game advertising provides a potential win-win-win situation for gamers, developers and advertising companies. With in-game advertising gaining traction in the industry and showing strong growth (Kuroda 2010a, Durrani 2009, Burns 2009, Guzman 2010, Kuroda 2010b, Ha 2013), this is a very viable business model for a startup company, particularly one with industry clout. Both methods of in-game advertising are simple to implement, product placement requiring a graphic design choice and banner ads typically come from advertising companies directly (Harris 2011). The benefits for companies are an additional source of revenue, possibly ongoing if the ad campaign is so constructed and the possibility to advance revenue streams if the ad campaign is decided at an early stage. It also removes some of the burden from the sales team, as the success or failure of the game is no longer so heavily sales-reliant. For gamers, the benefits are more stable prices and, if the product placement is done well, a heightened sense of realism, thus increasing the gaming experience and making them more likely to make future purchases from the company. For the advertisers, the increased access to their desired demographic as well as high Return on Investment (ROI) is extremely beneficial (Guzman 2010).

Opportunities

For a startup company, the additional revenue from advertisements can be the tool to take their games to the next level. With the increasing polarization of developers and disappearance of mid-tier companies (Tipps 2013), the additional revenue can be leveraged for more ambitious projects, allowing the company to grow. There is also the advertisers brand to consider, and a game advertising a well-known brand can gain larger visibility by utilizing the brand in its own marketing.

Weaknesses

However, in-game advertising does have challenges. Measuring results may prove to be difficult (Boyd &Lalla 2009). Games are consumed in a different way from traditional media, such as radio or TV, where typically a set number of people will be subjected to the advertisement at any given time. Games are consumed at different times for different lengths of time and any advertisement in-game can be seen any number of times. The long development cycles of games also make product placement more difficult or expensive to plan and implement due to the increased risk.

Threats

There is also the threat of community backlash to consider (Boyd &Lalla 2009). Although the ad revenue may help a game studio, if it is taken too far or does not blend in with the game world, the customer base may reject the game. This is also relevant to the banner ads, as they need to be placed so that the game experience does not become unbearable (Boyd &Lalla 2009). Also, should the advertisers abandon the game, for example in response to a scandal, this could leave a company heavily reliant on ad revenue in dire straits. Finally, the legal risks taken by both the game company and the advertiser are significant and must be carefully considered (Boyd &Lalla 2009), especially when advertising to minors.

5.3 "Try Before You Buy" / Trialware / Shareware / Demoware / Timedware

Tesla Effect Demo, Diver Fusion – Free Demo, Castlevania: Lords of Shadow 2 Demo

5.3.1 Classification

This method is based on giving the end-user a restricted version of the game, either through a time-constricted version that only allows the player to play for a set number of minutes, or by offering the first scene or arc for free and leaving in a cliffhanger, much like television and movies do with sequel bait (Perry 2009, pg. 45-46). This approach in its modern incarnation is essentially the same as digital distribution (Steam 2014), with the difference that it brings a new marketing approach to that model. The goal is to entice the player into trying the product and then to buy the full version. As this approach targets the end user directly, it is a clear case of B2C. Though this model greatly benefits from an e-commerce approach, it is not absolutely necessary for it, as seen from many of the demo-discs provided in the 1990's and early 2000's. Therefore, it can be claimed that this method does not requires any ICT infrastructure, though for a startup it would be useful for cost and distribution reasons to be capable of at least online delivery (Beynon-Davies 2004, pg. 313-314).

5.3.2 SWOT Analysis

Table 4."Try Before You Buy" / Trialware / Shareware / Demoware / Timedware SWOT Analysis

Strengths	**Weaknesses**
◦ An effective"hook" ◦ Shortens the buying process ◦ Allows hands-on evaluation of the game	◦ Demo needs to be excellent to avoid failure ◦ Difficulty in balancing giving away too much of the game or not enough of the game
Opportunities	**Threats**
◦ Sharable demo can lead to a large potential consumer base	◦ If the demo contains the full code of the game that is artificially limited, the limitations can be broken ◦ Timedware limitations can be fooled by turning back the devices clock

Strengths

The trialware approach can provide a startup company with significant visibility and uptake in an otherwise crowded market. By providing the players with an opportunity to try the product before making a purchase decision, this can shorten the buying process, in particular if the trialware version has an inbuilt option to purchase the full game upon completion.

By offering a trial version for free, the company communicates their confidence in their product. This in turn is an effective way to get people to try the product, as the opportunity costs are lower due to the free nature of the trial. Thus, if the trial is of sufficient quality and ends on an exciting note (a "cliffhanger"), the customer is more likely to make a purchase decision.

Opportunities

As more people are willing to try a product before making a purchasing decision, this can lead to large user base. This user base will then potentially translate into an increased uptake, leading to further sales and increased revenues.

Weaknesses

However, a company choosing to provide a ”try before you buy” approach needs to pay special attention to its execution. First and foremost, particularly for a startup without a proven pedigree, the trial version needs to be of a high quality so it will not turn away paying customers. A demo always exposes a game's possible faults. Even if the full version of a game is exceptional and opens into a great experience later on, should the trial version not be indicative of this, the negative publicity can kill the game. The opposite also holds true, as a game studio trying too hard to make its game succeed by having an enjoyable trial version experience can put too much content into it and thus remove value from making the full purchase. In both of these scenarios the company loses money, as the trial versions are typically without revenue, unless combined with other business models, such as in-game advertising.

Threats

A trial version of a game can be done in several ways, but one is to provide a full game with artificially truncated features. These features are then ”unlocked” after the full version is purchased. This approach has a distinct threat in that the ”protection” can be broken by hackers, who then distribute the ”cracked” copy illegally over the internet. This can significantly impact the profits of a company, especially for a young startup.

The other common approach, timedware, can also be fooled. The timing aspect of the trial usually relies on the clock on the device the product is installed on. This means that the user is able to continue his timed trial for much longer than the company intended and skew their forecasts.

5.4 Episodic Entertainment / Expansion Packs

The Walking Dead, Insecticide, SiN Episodes, Back To The Future: The Game

5.4.1 Classification

Episodic entertainment as a model is borrowed from the television market (Perry 2009, pg. 46). It works by releasing the total experience, typically a grand story arc, in smaller chunks or episodes, or adding to the main experience through expansion packs. It is different from a game franchise in that the episodes are typically much smaller than full games by themselves and are meant to tie together seamlessly for a complete story rather than be self-contained experiences. As these are marketed directly to consumers, this is also a clear case of B2C. Although ICT infrastructure is technically not necessary for this model, the cost of printing and distributing a disc for each episode is an unfeasible burden for a startup, so it is highly attractive to reach the online delivery stage (Beynon Davies 2004pg. 313-314).

5.4.2 SWOT Analysis

Table 5.Episodic entertainment / Expansion packs SWOT analysis

Strengths	**Weaknesses**
◦ Lower purchase price per episode means increased uptake ◦ Experience from early episodes can benefit the production quality of future projects ◦ Higher quality of life for developers ◦ More manageable projects ◦ Faster games-to-market ◦ More adaptable to community feedback	◦ Unsuitable or difficult for certain genres ◦ High level of trust necessary ◦ Wait time between episodes ◦ Revenue generation takes a longer time
Opportunities	**Threats**
◦ If the game is successful, it can be easily expanded ◦ Once all episodes are released, a ”collection” edition can produce further income	◦ If early episodes fail to meet expectations, the project can fail completely ◦ The idea grows old and less appealing

Strengths

Episodic entertainment is a product of the digital age and as such shares many of the strengths and weaknesses of digital distribution, while adding in a few and mitigating some (Beynon-Davies 2004, pg. 295-296). The lower costs typically associated with digital distribution are present with episodic entertainment and expansion packs as well, and due to the smaller parts making the eventual larger whole, the cost-per-episode is further decreased. This is compounded even further by the ability to reuse engine technology and other resources from earlier episodes, meaning that the profit margins in later episodes are likely to grow beyond the initial ones (Perry 2009, pg. 46). These lower costs in turn may attract more customers than a full-priced game might, as the risk for the consumer is lower.

Cutting down the game into smaller pieces also helps the development team. As the projects are more focused and manageable, the quality of life for developers will increase. This is particularly valuable to startups where the teams are smaller and uncertainty can be a significant factor in the early stage. As quality of life is often linked with performance, this will likely give the company a higher quality product within schedule. For the business side of the company, this leads to a faster games-to-market movement, meaning more steady and ongoing revenues as well as longer product life cycles.

As the game will likely be fully digitally distributed, it is relatively simple to make fixes and changes to it. The exposure and experience, for example from community feedback, may benefit the production and development of further episodes and make the game fit the wants of the community better, increasing the company's standing amongst the gaming community.

Opportunities

This approach also provides opportunities for further monetization for the developer, once the planned cycle has been completed. In an already episodic story, an expansion will not seem at all out of place, a ”season 2” if you will. The episodes can also be compiled into a ”collector's edition” for convenience and further revenue from new sources.

Weaknesses

On the other hand, episodic entertainment carries with it all the negatives of e-commerce (Beynon-Davies 2004, pg. 296). Although gamers may be more willing to risk purchasing a lower-cost episode than a fully-priced game, the privacy issue still stands, as does the risk of the company's digital distribution platform folding. Also, due to the typically short nature and bi-annual or annual releases of the episodes, there is the chance that players will lose interest and move on to something new. A company needs to keep their existing customer base engaged and to attract more even during the wait times between episodes. The company will also lose some of the benefits of the episodic approach, primarily the chance for players to try the first episode, once all

the episodes have been released and a collection is released, increasing the threshold for new customer's after that point.

Threats

Not all episodic approaches have been successful, and if the first installments fail to meet projections, the game can be cancelled prematurely. This has happened to games such as Sin Episodes and Bone, and can cost the developing studio a significant amount of customer goodwill.

There is also the danger that the idea will age. As time passes, technology advances and consumer tastes change, which can lead to the latter episodes to be viewed as passé. This can lead to consumers abandoning them, thus risking the overall success of the project.

5.5 Pre-Sell a Game to Its Players

Kickstarter, preorders, Steam Greenlight

5.5.1 Classification

This model seeks to finance the development of the game by advancing the revenue stream by charging the players before the game has been released. Perry (Perry 2009, pg. 53) gives an example of players paying $10 for a $50 game for early access and beta testing and when the game is released, they get the full game for free. In recent years, this model has seen new venues through expanded internet services, such as Kickstarter, where consumers can choose to support a game on various levels and gain perks when the game eventually comes out. Such infrastructure should meet at least the online delivery level (Beynon-Davies 2004, pg. 313-314) and has a clear B2C approach.

5.5.2 SWOT Analysis

Table 6.Pre-sell a game to its players SWOT analysis

Strengths	**Weaknesses**
◦ Finances the early development stage ◦ Increased beta testing ◦ Word of mouth promotion	◦ Possibility of poor beta reviews to kill the game before launch ◦ Requires reputation or an exceptional idea to catch an audience ◦ Losing revenue from discounted early access
Opportunities	**Threats**
◦ Remain independent from traditional investors ◦ Potential for a highly loyal customer base ◦ Potential for higher financial gains for the founders	◦ Possibility to fail to gain funding ◦ The collected funding may turn to be insufficient

Strengths

By pre-selling a game to its players, a company gains two important benefits over the other business models: they speed up the cash flow from the game, which has a profound effect on the security of your company and finances the early development stages, and it allows for increased beta testing. Both of these provide a startup with valuable resources, as the cash flow can be injected into operations to begin work earlier and the beta testing can be used to compliment an otherwise smallish team of developers and quality assurance analysts. It will also increase the visibility of a game in social media, as gamers will feel a sense of ownership over the game and talk about it to their friends (Wera 2008).

Opportunities

If successful, this method allows the developer to remain independent from traditional investors, who may otherwise interfere with the vision of the developer. The studio will be able to interact more organically with their customer base, allowing the studio to cultivate a loyal following by being more responsive to customer feedback. In the internet age, this kind of positive exposure can prove to be invaluable, as the market for video games becomes truly global.

The personal investment from gamers in the game's development will also possibly lead to a more loyal customer base than with other models. This loyalty can translate to more accurate forecasting in the future, allowing future development projects to be more accurately planned. This in turn will increase the company's stability and allow the company to achieve a better use of resources.

In the long run, this independence from traditional investors will also translate into potentially higher financial returns for the founders, which is of high interest in a startup company. With completely retained ownership, any added value goes directly to the founders and in a case of an outright sale of the company, the founders can see significant returns on their personal investment.

Weaknesses

Unfortunately, the same social media awareness can be negative. Although the reason for beta testing is to find and fix aspects that are wrong in the game, if the beta testing is particularly bad it goes to reason that players will reject the game. This model is also unlikely to reach those who are information poor (Beynon-Davies 2004, pg. 296) as it is a relatively new phenomenon with Kickstarter and Steam Greenlight, two of the most prominent platforms for this business model, launched in 2009 (Baio 2009) and 2012 (Valve 2012) respectively.

One could also argue that without a ready product it is very difficult to attract the kind of attention necessary to make this a viable option for funding. It requires a solid reputation or an exceptional idea with skilled marketing and communication to catch an audience. Also, rightly or wrongly, gamers will generate a certain feeling of ownership over a project they have helped fund, and the company will have to nurture this community very carefully if they wish to continue using this business model. A recent example of this is the purchase of Oculus Rift by Facebook (Zuckerberg 2014) which caused a massive community backlash on the internet (McShea 2014). Although a company may recover from such a move, a mistake done once in the gaming community will likely haunt you for a long time, such as the enduring saying that Sony's PlayStation 3 has ”no games”, due to its weak launch lineup in 2007 although the situation has been reversed since 2008 (Dutka 2008).

One more dangerous weakness in this model is the loss of revenue. As Perry says, this model sometimes works by selling early access for cheaper than the full game (Perry 2009, pg. 53). In his example case, the company loses $40 worth of revenue per sold title. Depending on how large the pre-sell approach is, this can mean a serious reduction of the game's eventual profitability.

Threats

The main threat for this approach is that the company may fail to reach funding. If for example a Kickstarter project fails to gain sufficient funding in the allotted time, the project gains no funding from the Kickstarter. This is a very real threat (Kickspy 2014), as a failed Kickstarter is unlikely to gain interest from traditional investors either. After

all, the market has already shown that there is little or no interest in the project and investors will likely have other, more promising investment opportunities for their money.

The other significant threat with this approach is the possibility that once the funding has been collected, it may prove to be insufficient. For an unforeseen reason, the project may turn out to be more expensive than first expected, and the project can be delayed, require additional funding or even canceled. A delay can be reconciled with if done for a good reason, as it is increasingly common (IGN 2014), but if a company requires additional funding, they might risk their independence, mitigating a lot of the strengths and opportunities. If the project is cancelled though, this can have grievous consequences. If the early access has been paid for already, the damage to the company's reputation can be severe, as people have invested money and time into the testing process. In the most extreme cases this can even lead to legal action, should the prepaid sums be sufficient enough and the company's response lackluster enough for the customers to pursue this.

5.6 In-Game Stores and Micro-Transactions

Clash of Clans, Guild Wars 2, Plants vs. Zombies 2, Dungeon Keeper Mobile

5.6.1 Classification

This model has seen a great deal of success in recent years, and as with in-game advertising it can be split into two parts: in-game stores and micro-transactions (Perry 2009, pg 54-55). By spending money the player purchases in-game currency used to purchase perks and items that would otherwise require massive time investments or be impossible to get altogether. This is usually done with free games as the primary source of revenue from the game (known as freemium) or to finance ongoing operations, such as the cost of running servers. Both of these approaches require an online delivery stage in e-commerce due to the purely digital content sold (Beynon-Davies 2004, pg. 313-314), and as the content is sold to the players it requires a B2C approach. These games typically invest heavily into the pre-sale stage by attempting to go viral by utilizing social networks (Perry 2009, pg. 54-55).

5.6.2 SWOT Analysis

Table 7.In-game stores and micro-transactions SWOT analysis

Strengths	**Weaknesses**
◦ Revenue continues after purchased ◦ Plays to people's vanity and impatience ◦ Large user base quickly in freemium games	◦ Requires more planning than traditional pricing ◦ Requires large numbers of users ◦ Little knowledge to support analytical decision making ◦ Not always clear what should be free and what limited ◦ High operating costs
Opportunities	**Threats**
◦ Much higher gains than single payments ◦ Paying customers are more committed in long term spending	◦ Regulatory threats ◦ Damage to reputation ◦ Negative attention from hard-core gamers ◦ High risk for financial failure

Strengths

The primary strength of this approach comes from the recurring revenues. Whether the game is paid or free, micro-transactions will provide the company with an ongoing source of income, which combats one of the challenges that have plagued the industry for years, namely the short ”sell-by” dates of new games. With the freemium model this approach has shown its validity, as about 77% of the top 100 grossing apps in App Store use freemium, up from 4% in 2010 (ProQuest 2013b) and in 2013 93% of game revenue came from freemium, up from 86% in 2012 (App Annie 2014). The reason why this approach works so well is likely because it lends itself very well into building a large user base very quickly (ProQuest 2013a) and then plays to people's vanity and impatience, aspects that are increasingly prominent in our busy and time-constrained lives. It is also very easy to combine with other revenue sources, particularly advertisement, to generate revenue from the non-paying members.

While freemium is arguably the most prominent example of micro-transactions and in-game stores, it is by no means the only one. An example of a paid game having in-game micro-transactions is Guild Wars 2, a massive multiplayer online role playing game (MMORPG). These games are usually hugely expensive undertakings, both in initial investment and operating costs (Karmali 2013). Whereas the traditional model of MMORPG's financing is a monthly subscription, ArenaNet decided to finance their game's operations by having players pay for design elements or boosters in the game store by purchasing an in-game currency with real money, which could then be used in game. This has proven to be wildly successful for ArenaNet, and something that could be used in games with exceptionally high value to justify the double cost of purchase price and micro-transactions.

Opportunities

The reason a lot of companies choose this model is that the potential returns per player are huge. Top players of games like Clash of Clans spend hundreds of dollars per week and thousands of dollars total with these models (Bai 2013). This is magnitudes more than traditional pricing models, and if companies can convert sufficient numbers of players into paying members, the potential revenues are enormous.

These customers are also likely to be more committed to long term spending. As the games are typically planned to take a long time to maximize potential earning opportunities, those players wishing to reach the top are likely to spend their money continuously in that one game and less likely to switch to a competing title.

Weaknesses

On the other hand, both of these approaches require much more attention to the planning stage than traditional pricing, which is made much more difficult by the limited knowledge to support the analytical decision making (ProQuest 2013a). This approach, particularly in the freemium approach, requires large numbers of users to cover the operating costs. It is also not always clear what should be free and what limited (ProQuest 2013a, ProQuest 2013b), and balancing between these has proven to be very problematic to many companies (ProQuest 2013a, ProQuest 2013b).

Threats

There are also increasing regulatory threats towards this approach, particularly from the European Union (Sinclair 2014). With consumer protection gaining traction in this area, companies that rely heavily on this practice may find themselves restricted and have to restructure their strategy.

Another issue with this approach is that typically only 1-2% of people who download an app do in-app purchases (ProQuest 2013b, Swrve 2014). This leads to companies having significant upkeep costs as they have to care for 100% of the customer base, while only gaining income from a miniscule percentage of them. This can lead to a complete financial failure, as the freeloaders and small spenders may be a drain on the company's resources that the larger spenders might not be able to fill.

6 Conclusion

Though the work looked at the six business models individually to assess their strengths and weaknesses, it is the opinion of this author that in order to achieve the best outcome, a startup should combine elements from different approaches to form their final business plan. This way the company can leverage the strengths to complement each other while working to mitigate the weaknesses of each. Advertising works particularly well in this, as it can be used in conjunction with other models to gain revenue from players that otherwise would not generate any, such as the 98-99% of freemium players or those trying trialware.

What also became evident, particularly when studying the community responsiveness of episodic entertainment and trust cultivation in pre-selling a game approaches, was that community management has emerged as one of the threats and opportunities in many business models. Word travels fast and far in the increasingly interconnected world through online communities and social media. Because of its increased importance, it is something that startups need to pay careful attention to. For startups, a solid reputation is of great importance in order to break from the pack and establish yourself as a serious developer. With the likely low budgets that startups will be dealing with, the most feasible form of marketing will be word of mouth. This can launch a studio or bury it, so careful cultivation is very necessary.

It is also increasingly clear at this point from current and past trends that the future of gaming will be digital. The lower costs, potentially higher margins and more convenient distribution channels seem to be the drivers behind this movement. Many startups are born digital to take full advantage of the benefits, with increasing numbers of established companies, such as EA, opting to go the digital route as well. This move by established players away from the traditional retail model signals that the digital tomorrow is almost inevitable. This will provide both gamers and companies with many positive aspects, such as more stable supplies and lower costs, but also some unfortunate side-effects, such as the end of the used-game market.

The video game market will in all likelihood continue to grow in the future, as has been the trend since 2005. This growth stems from mainstream consumers becoming more accustomed to it and continuing the decline of its stigma of a ”geeks only” pastime.

The companies that cater to this market will probably fall into one of three categories, in which there may be overlap: Mobile developers, indie developers for PC/Mac and consoles, and AAA studios. The appearance of the mobile developers has been made possible by the technological advances in smartphones and tablets, and their continuously increasing capabilities and widespread use which form a beneficial ecosystem for gaming companies. As the mid-sized developers are disappearing, gamers will however have less variety in choice as larger companies will likely want to play it safe by exploiting existing franchises. Indie studios will have more freedom and are likely willing to take more risks, but may lack the resources to fill the gap left by the mid-tier developers. This may lead to stagnation at the top of the gaming company hierarchy if companies are unable to make the large resource leap from an indie studio to a AAA developer.

The continuously evolving ecosystem that gaming exists in means that new business models will continue to rise and old ones will fade into history. This dynamism, constant change, and creative chaos are what make the industry such an interesting area to study and operate in, and why startups will always have a chance to find a foothold in it.

6.1 Evaluation

The findings of this study coincide with the initial hypothesis and the goals set at the beginning of the study. The goals of finding the reasons for the success and failure of various business models were met and the researcher himself is satisfied and excited with the findings. The researcher is confident, that the results of this study will provide a videogame startup with valuable insight into six business models available to them, and what forces to take into account when choosing a particular approach. By having the most important points supported by evidence at their disposal, the researcher feels it is fair to argue that startups using this work as a guide will be more likely to meet success than their competitors.

7 Future Research

This study concentrated on six of Perry's identified business models for video game companies. This allowed the study to concentrate on models particularly suitable for startup companies, but also leaves plenty of room for future studies in the area. The remaining 33 models were not covered here and their analysis can yield interesting results. For example, what role will games as adverts play in the future and what business potential will that have given the over 3 billion weekly hours that people spend gaming? The future also has emerging technologies, such as the Oculus Rift and Project Morpheus, and the study of the impact of these and other ”disruptive agents” on the established parameters will surely be a subject of a future study.

The perspective of the study may also be changed to look at how an established company can utilize new business models in future titles or how a retail-oriented company can become a part of the digital marketplace, for example. Though limited examination of the effects of software piracy were done in this thesis, further studies and effects of piracy on various business models can also be considered as a subject for further study.

The same subject can also be approached with an entirely different methodology. This study looked at the historical and current trends relating to the business models, but the public, academic and professional views may be also gauged by a quantitative analysis via questionnaires and data analysis. This method would allow future researchers to compare the industry views and market views on each business model and help companies better orient their strategy to meet the wants of their customers.

These studies have the potential to yield very viable results for startups and larger companies alike and should be considered as subjects for future researchers interested in the field.

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Glossary of Terms

AAA game (Triple A game) = A game produced by an established studio with significant resources, comparable to big Hollywood blockbuster movies.

Banner ad: An advertisement graphic constantly visible in-game, usually placed at the top or bottom of the game

Casual gamer = The majority of gamers, primary use of games is to socialize and have fun.

Console gaming = Gaming done on video game consoles, such as the PlayStation 4 or Xbox One.

Dedicated handheld = A portable device designed primarily for gaming purposes

First person shooter = A genre of games where the primary focus of the game is guns and projectile weaponry combat. The point of view and perspective of the game is that of the main character, thus first-person view.

Handheld console = See Dedicated handheld

Hardcore gamer = Players who have gaming as their primary hobby, spending large amounts of time playing games.

Indie game = A game produced by a smaller studio.

Mobile gaming = Gaming done on mobile devices, such as smartphones and tablets.

Title = A game